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ABSTRACT

Social interactions in Head Start mainstreamed classrooms were studied using as Ss 20 mildly and moderately retarded preschool children and 20 nonretarded children. Data analyzed consisted of the following social interactions: initiations, responses, mode of communication, and affective tone of behavior. Findings showed that retarded Ss generally had fewer interactions with peers than their classmates, that they had more positive interactions with peers, and that they had many more interactions with teachers than with their classmates. Other findings indicated that both retarded and nonretarded students had the same amount of interactions with their teachers. Results appeared to show there was a negative relationship between teacher initiations to retarded Ss and Ss' interactions with their peers. (PHR)

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Results of Mainstreaming on Social Interaction of Mentally Retarded Preschoolers

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A growing phenomenon across the country is the decision to integrate handicapped children into preschool, elementary, and secondary programs. Recently, federal legislation mandated that handicapped children, including the mentally retarded, are to be educated in regular classes with nonhandicapped to the maximum extent possible (P.L. 94-142, 1975). Mainstreaming is the term used to describe this educational concept. It is operationally defined in this study as the integration of mentally retarded pupils into regular preschool classrooms.

Purpose

Since one of the major goals of mainstreaming is to improve the social acceptance of the handicapped child, the intent of this study is to identify the broad patterns of social interaction in mainstreamed preschool classrooms. It is designed to investigate the interactions between the mentally retarded pupils and their nonretarded classmates in the mainstreamed preschool classroom. In addition, this study examined the relationship between the teacher's interaction with the retarded pupils and the social behavior of the retarded pupils with their classmates in Head Start classrooms.

Specifically, the first question of this study asks whether there is a difference between the social interaction chains of retarded and nonretarded pupils in mainstreamed classrooms. Social interaction chains are comprised of an initiation followed by a response and then a series of behaviors emitted by the same two persons continuing to interact. (LeBlanc, Etzel & Tyler, 1974). Since teachers have an effect on the social acceptance of retarded pupils, the second question asks whether there is a difference between teachers' social interaction with retarded and nonretarded children.

There is a small body of research which suggests that the most effective method of increasing social acceptance of the mentally retarded is through adult intervention (Cooke & Apolloni, 1976; Strain & Timm, 1974; Strain & Wiegerink, 1975). That is, there is a higher incidence of social interaction between the retarded and their

classmates when some type of adult intervention is used. Thus, the third question asks if there is a relationship between the teacher's interaction with the pupils and the social behavior of retarded pupils mainstreamed into preschool classrooms.

It appears that a specific type of teacher attention—priming, that is, directing a student to behave in a certain manner--increases the social interaction of preschool children (Guralnick, 1978). A pilot study, undertaken in preparation for the present study, indicated that teachers used significantly more priming with mentally retarded subjects than with the other subjects in the class. The fourth question then raised is, does priming increase the social interactions of mainstreamed pupils?

Subjects

Since the Economic Opportunity Amendments (P.L. 92-424, 1972) mandated Head Start Centers to have at least 10% of total enrollment opportunities made available to handicapped children, it was decided to conduct the observations of this study in 15 Head Start Classrooms in New York City.

The subjects of this study were: (1) 20 mildly or moderately mentally retarded pupils selected from 15 Head Start classrooms, (2) 20 nonretarded pupils selected from the same classrooms as the retarded subjects, and (3) the teachers of these subjects. The retarded subjects were evaluated and diagnosed to be mentally retarded by professional evaluation centers. The pupils were between three and five and one-half years of chronological age. The mentally retarded subjects were matched for age, sex and ethnic group membership to the nonretarded subjects. Each classroom observed had at least one retarded child and a few had two retarded children. No classroom had more than two retarded children.

Procedure

1. Ten social interaction chains of 20 mentally retarded pupils mainstreamed into Head Start classrooms were observed and recorded.
2. Ten social interaction chains of 20 nonretarded subjects matched for sex and age to the retarded subjects were observed and recoded.

3. Five social interaction chains between the teacher and the mentally retarded subjects and five social interaction chains between the teacher and nonretarded subjects were observed and recorded.
4. The time at the beginning and end of each set of observations were recorded.

Instrument

The instrument used for the purpose of data gathering was an adaption of the LeBlanc, Etzel, and Tyler, Social Interaction Observation Procedure Training Manual (1974). In addition, White's (1977) system of categorizing the affect of the behavior being observed was used. That is, whether the behavior was positive, negative or neutral. Event sampling rather than time sampling was employed. A specified number of social interactions were observed so there was an equal number of interactions per subject. Thus, the differences within the chains, incidence difference with different people, and the type of social interactions were examined. The time was noted at the beginning and end of the observation of each subject so that the average time needed for each group to accumulate the specified number of interactions could be compared. *

Method of Data Analysis

Data for the analysis consisted of total scores of the following social interactions: (1) initiations; (2) responses; (3) mode of communication (verbal, nonverbal, combined), affective tone of behavior (positive, negative, neutral). Positive tone refers to a verbal or nonverbal emitted that shows approval. Negative tone refers to verbal or nonverbal behavior emitted that shows disapproval. Neutral refers to verbal and nonverbal emitted that is neither positive or negative in affect of tone. The data were examined for three groups: first, the retarded subjects; second, the nonretarded subjects; and, third, the teachers of these subjects. There were two methods of observation: one was to observe the social interactions of the retarded and nonretarded subjects with their peers and teachers, with pupil as target of

* Manual for Data Collection of Initiations, Responses and Affective Mode of Social Interactions is available from Nancy Herink, Felician College, Lodi, NJ 07644

observation; the other was to observe five social interactions of the teacher with the retarded and nonretarded subjects with the teacher as the target of observation.

The data were first examined using the following formula: the ratio of the amount of interaction by the retarded subjects to the amount of interaction by non-retarded subjects, that is:

$$\frac{\text{Retarded subjects' behavior}}{\text{Nonretarded subjects' behavior}}$$

The following statistical tests were used to analyze the ratios:

1. The binomial test (Siegel, 1956).
2. χ^2 test with correction for continuity (Siegel, 1956).
3. Spearman rank correlation coefficient (Siegel, 1956).

A value of $p = .05$ was chosen as the criterion of significance. Values of p between .055 and .095 were considered of borderline significance.

Results

Question 1

Are there differences in the incidence and type of mentally retarded and non-retarded pupils' social interaction with their classmates in mainstreamed classrooms? Incidence refers to the number of times that all behavior occurs. Type refers to any way of labeling behavior other than incidence.

The retarded children generally had fewer interactions with peers than their classmates. Relative to their classmates, retarded children showed fewer initiatives, fewer responses, fewer verbal interactions, and more positive interaction with peers. The retarded children, however, had many more interactions with teachers than their classmates, both proportionally and absolutely. This tendency to interact with teachers may interfere with their potential for interacting more frequently with peers. Presumably there is only a certain amount of interaction time available during a school day.

Question 2

Does the incidence and type of the teacher's social interaction with mentally retarded pupils differ from the incidence and type of the teacher's social interaction with nonretarded pupils? In order to answer question 2, the teacher was the target of a second observational procedure and only her interactions with child subjects are reported (that is, her interactions with other children in her classroom were ignored for the purpose of this study).

Generally, the retarded pupils had the same amount of interactions (within the social interaction chains) with their teachers as the nonretarded. In comparison to their classmates, the retarded children had fewer negative verbal interactions and a trend toward more nonverbal negative and neutral interactions. When the total verbal and nonverbal behavior irrespective of affective tone was compared between the two groups, no significant differences were found. But the nonretarded had significantly more verbal than nonverbal interactions and the retarded children had no significant difference between verbal and nonverbal interactions.

Question 3

Is there a relationship between the incidence and type of social interaction between teachers and mentally retarded pupils and the incidence and type of social interaction between mentally retarded pupils and their classmates in mainstreamed preschool classrooms?

It appears there was a negative relationship between teacher initiations to the retarded subjects and the subjects' interactions with their peers. That is, the more the teachers initiated to the retarded subjects, the less these children initiated and responded to their classmates. As with question 1 above, this may be an artifact of the teachers' taking up too much of the retarded subjects' limited opportunities for interacting with their peers.

Question 4

Is there a relationship between the teachers' priming of mentally retarded pupils and the mentally retarded pupils' social interaction with their classmates?

The retarded pupils received a greater amount of priming from their teachers than nonretarded children did. However, differential amounts of priming did not appear to be related to different amounts of social interaction on the part of the retarded subjects.

Discussion

The following interpretations of the findings were made:

- (1) The retarded pupils had fewer social interactions with their classmates because they had more social interactions with their teachers.
- (2) The retarded subjects had more nonverbal than verbal interactions because they have poorer language skills than the nonretarded, and their teachers followed the retarded subjects' mode of communication.
- (3) When the retarded subjects' interaction with their classmates was compared to the teachers' interaction with the retarded subjects, there was a negative correlation between teacher initiation and response to peer, and peer response to subject. This finding agrees with the finding relative to question 1; that is, when the teachers have significantly more social interaction with the subjects, these subjects have significantly less interaction with their peers. This appeared to be due to lack of opportunity for the retarded subjects to interact with their classmates when they were occupied with their teachers.
- (4) A reason for the failure of the priming effect may be an artifact of the observational strategy used in this study. The event sampling technique tapped a uniform number of interactions for each subject. A subject who had, for example, two priming interactions with a teacher would automatically be deprived of two opportunities for unprimed interactions with his or her peers. Thus, it is conceivable that as teacher primes increased, the child's opportunity to demonstrate his/her effectiveness decreased, and that this inverse relationship was an artifact

of the event-sampling observational approach used in this study.

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